USER'S MANUAL

Impact Receipt Printer

BTP-M170

Shandong New Beiyang Information Technology Co., Ltd.

ORIENT Technologies bv

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Warning and Caution

⚠ Warning: Items shall be strictly followed to avoid damages to body and equipment.

⚠ Caution: Items with important information and prompts for operating the printer.

The quality control system of SNBC has been approved of the following certification.

ISO 9001 REGISTERED DNV MGMT. SYS. RvA C 024 DNV Certification B.V., The Netherlands

(DNV)ISO9001:2000

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(DNV)ISO14001:2004

BTP-M170 has been approved of the following certification.

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General Safety Instruction

Before installing and using the printer, please read the following items carefully:

1. Safety Instructions

Do not touch the tear-off bar of the printer.

The print head is at a high temperature during printing or just after operation, do not touch it and its peripherals for reasons of safety.

The print head is an ESD-sensitive device. To prevent damage, do not touch either its printing parts or connecting parts.

2. Cautions

1） Install the printer on a flat and stable surface.

2） Reserve adequate space around the printer so that convenient operation and maintenance can be performed.

3） Keep the printer away from water source, direct sunlight, strong light and heat.

4） Do not use or store the printer in a place exposed to heat or fire, moisture or other pollution.

5） Do not place the printer on a place exposed to vibration or impact.

6） Avoid exposing the printer to condensation. In case of condensation, ensure it has been completely removed before turn on the power.

7） Connect the power adaptor to an appropriate ground outlet. Avoid sharing a single electrical outlet with large power motors and other devices that may cause the fluctuation in voltage.

8） The socket-outlet should be installed near the equipment and should be easily accessible.

9） Do not spill water or other electric substances (like metal) on the printer. If this happens, turn off the power immediately.

10） Do not allow the printer to start printing when there is no paper, otherwise the print head and platen roller will be damaged.

11） To ensure print quality and normal lifetime, use recommended or good quality paper and ribbon.

12） Shut down the printer when connecting or disconnecting interface connectors to avoid damage to the control board.

13） Do not disassemble the printer without guidance from a technician, even for the purpose of repair.

14） Keep this manual safe and at hand for reference purpose.

1 Overview

1.1 Outline

The BTP-M170 is a 9-pin serial impact dot matrix receipt printer offering high quality, high speed, and stable performance. It is widely used in real-time printing on-site, such as POS system and hospitality applications.

The BTP-M170 can be connected with other devices via parallel interface and serial interface, and also offers drivers and applications under WINDOWS98 /NT4.0 /2000/2003/XP/Vista.

1.2 Features

- High printing speed.
- Easy operation and maintenance.
- Support marked paper and continuous paper for print.
- Compatible with various wide paper.
- Cash drawer control connector.
- Support multi-layer paper.
- Paper near end alarm optional.
- Buzzer alarm optional.

1.3 Model Classification

BTP-M170 X X X X

a b c d e

- **a Printer name**
- **b Interface type**

  R3: RS232 (DB25)

  P1: CENTRONICS (DB25)
- **c Paper near end module**

  Default: No paper near end module

  Y1: With paper near end module
- **d Color**

  I: Ivory (Default)

  B: Black
- **e Buzzer**

  Default: No buzzer

  Y2: With buzzer

2 Specifications

2.1 Main Specification

Item		Specification			
Print mode		9-pin serial impact dot matrix			
Print speed		Max. 4.2LPS (420 dots/line)			
Print width		Max. 420(half dots)/210(full dots)			
Paper	Paper type	Continuous paper or marked paper			
	Paper width	76±0.5mm,69.5±0.5mm,57.5±0.5mm			
	Single layer	0.06—0.085mm			
	Multi-layer paper (1 original+2 copies)	0.05—0.08mm,total thickness≤0.2mm			
Character	Character type	Font A:9×9 Font B:7×9 Chinese:16×16			
	Characters/line		76mm	69.5mm	57.5mm
		Font A	35 CPL	30 CPL	25 CPL
		Font B	42 CPL	36 CPL	30 CP L
		Chinese	23 CPL	20 CPL	16 CPL
	Character size	Font A:1.5×3.1mm Font B:1.2×3.1mm Chinese:2.6×2.7mm			
	Characters/inch	Font A:14CPI Font B:16.7CPI Chinese:9.3CPI			
Data buffer	Receive buffer	4KB or 40bytes			
	NV bit image data area	128KB			
	User NV memory	8KB			
Ribbon specification		ERC-39/ERC-43 ribbon cartridge, purple or black			
Ribbon lifetime		3,000,000 characters			
Communication interface		RS-232C or Parallel			
Cash drawer connector		1～2 cash drawers			
Power supply		DC 24V (tolerance±5%),average current 1.5A			
Printing mechanism lifetime		9,000,000 lines			
Print head lifetime		150,000,000 characters			
Operating temperature and humidity		5-45℃,20-90%RH(40℃)			
Storage temperature and humidity		-40-60℃,20-93%RH(40℃)			
Dimensions		164(W)×248(D)×148(H)mm			
Weight		1.8kg			
Certificates granted		FCC, UL, CUL, CE, CB, GS			

2.2 Paper Specification

2.2.1 Continuous paper

1) Normal paper

- Paper width: 76±0.5mm/69.5±0.5mm/57.5±0.5mm
- Max. paper roll O/D: Φ83 mm
- Paper roll core: Φ12.5mm
- Paper thickness: 0.06—0.085mm

2) Multi-layer paper (1 original +2 copies)

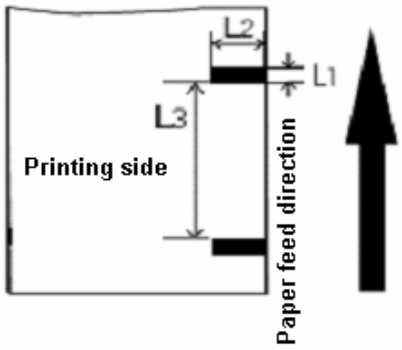
- Paper width: 76±0.5mm/69.5±0.5mm/57.5±0.5mm
- Paper thickness: 0.05－0.085mm,total thickness≤0.2mm

Caution

Use only multi-layer paper (1 original + 2 copies) of which the original layer on contact the print head thicker than its under-layer.

2.2.2 Marked paper

When using marked paper, the black mark (B/M) must be printed at the obverse side; the black mark's reflectivity should be less than 15%, and the other part's reflectivity should be more than 85%. There should be no image between the two marks, such as the advertisement. B/M size should meet the requirement:



5mm<L1(B/M width)<10mm

L2(B/M length)>12mm

20mm<L3(near marks space)<500mm

2.2.3 Recommended paper

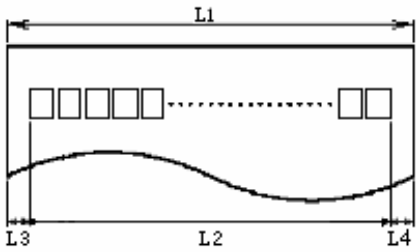
Oji paper mfg. Co., Ltd.: Register paper.

Caution:

- ✧ Please use the recommended paper type or its equivalents. Using other paper types may affect the print quality or shorten print head lifetime.
- ✧ Do not paste the paper to the core.

2.3 Print and Tear-off Position

2.3.1 Print position



L1: Paper width

L2: Print width

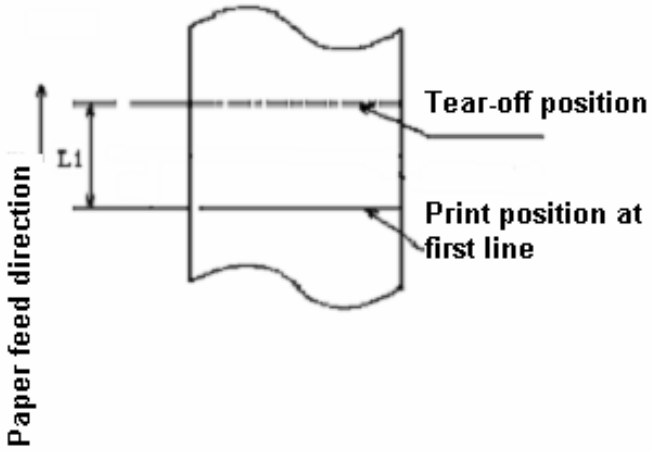
L3: Print left margin

L4: Print right margin

According to the different paper width of the L1, the print width (L2) and the right/left margin (L3/L4) should be changed as below:

Paper width (L1)	Print width (L2)	Left margin (L3)	Right margin (L4)
76mm	63.5mm	6.3mm	6.2mm
69.5mm	54.4mm	8.9mm	6.2mm
57.5mm	45.3mm	6.0mm	6.2mm

2.3.2 Tear-off position

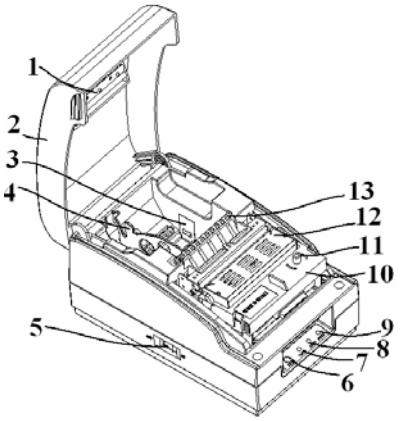


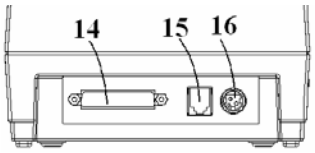
L1: About: 20mm

3 Outline and Parts

3.1 Outline and Parts

1 — Tear-off bar
2 — Top cover
3 — Paper near end sensor
4 — Paper guide
5 — Power switch
6 — FEED button
7 — PAPER LED
8 — ERROR LED
9 — POWER LED
10 — Ribbon
11 — Ribbon knob
12 — Print mechanism
13 — Paper guide platen
14 — Communication interface
15 — Cash drawer connector
16 — Power connector





Functions of parts:

a- Paper guide

There are three long slots at the bottom of paper cabinet. The paper guide could be plugged in different slot which is suitable for different wide paper, such as 76.5±0.5 mm, 69.5±0.5 mm, 57.5±0.5 mm.

b- Power switch

Turn on/off the printer. "O" is to turn off the printer; "—" is to turn on the printer.

c- FEED button

- Press the button while turning on the printer, a self-test page will be printed.
- In the normal status, press the FEED button shortly, the printer will feed paper one line at a time. Under continuous paper mode, hold the FEED button, the printer will feed paper constantly. Under marked paper mode, it will feed paper to the next mark.
- In HP error status, hold the FEED button for a long time, the printer will recover from HP error and start carriage verify check.
- In paper end status, press FEED button, the printer will feed continuously.
- In error status other than described above, press FEED button, the printer will have no action.

d- PAPER LED

Indicate paper status of the printer. Under normal conditions, PAPER LED is always off; under paper end or paper near end conditions, it is always on.

e- ERROR LED

Indicate all error status. Under normal conditions, ERROR LED is always off; under error conditions, ERROR LED will flash.

f- POWER LED

Indicate power status (on/off). When turning on printer, POWER LED is always on; when turning off printer, POWER LED is always off.

g- Paper near end sensor

Detect the status of paper roll. If paper near end, the ERROR LED will flash and indicate user to replace paper. The printer will continue printing until the paper is end. The printer will indicate paper near end when remaining paper is less than 3m or paper roll O/D is less than 25mm.

Caution:

The paper guide is a necessary part of the printer for adjusting paper width, please keep it carefully.

3.2 LEDs and Buzzer

1) The table below shows the functions of LEDs and buzzer:

Name	Status	Printer status
POWER LED(Green)	On	Power on
	Off	Power off
ERROR LED(Red)	Flash	Error
	Off	Normal
PAPER LED(Red)	On	Paper end or paper near end
	Flash	Standby
	Off	Normal paper status
Buzzer*	Beep	Error

2) The table below shows LEDs and buzzer in error status:

Error	Buzzer*	ERROR LED	PAPER LED
HP error	Interval buzzing	Interval flash	Off
Print head overheated	Six sounds	Six times	Off
Abnormal voltage	Five sounds	Five times	Off
Paper end	Two sounds	Two times	On
Paper near end*		One time	On

*Buzzer and paper near end sensor are optional.

Caution:

The printer checks the print head temperature via thermal resistor. If the print head is extremely overheated, the printer will stop printing at 140℃.

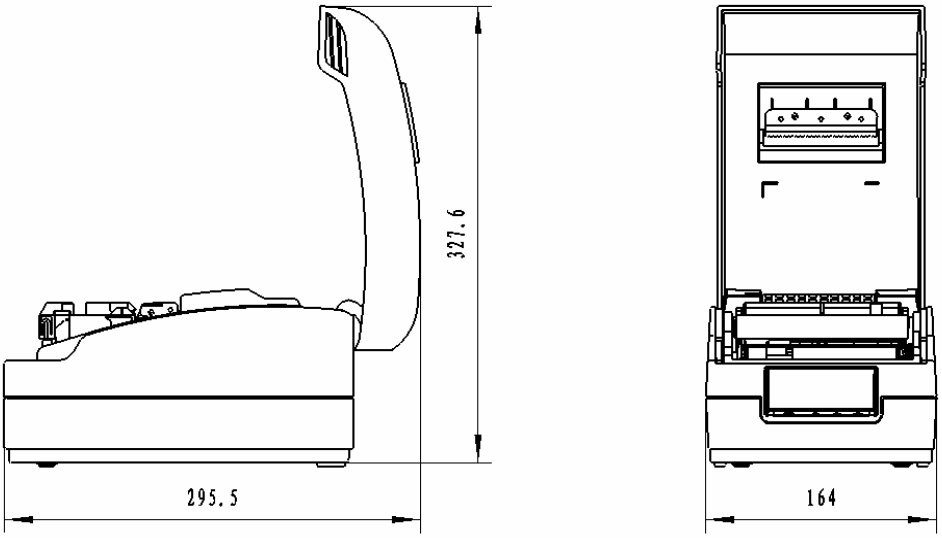
4 Installing

4.1 Unpacking

When unpacking, you should check whether all parts are present and undamaged in accordance with the packing list. If any part is missing or damaged, please contact SNBC or your local agents.

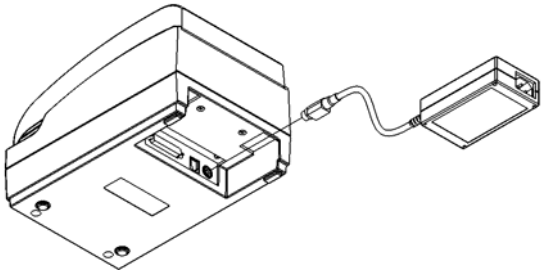
4.2 Installing Position and Direction of the Printer

1) The printer should be mounted on a flat and stable surface. It is recommended to use horizontal installing mode; the slanting angle of the printer should not exceed ±15°only in paper feeding direction.
2) The printer must be far away from water source.
3) Do not place the printer on a place exposed to vibration or impact.
4) Make sure the printer is connected to a ground line.
5) When operating or maintaining the printer, reserve adequate space around the printer (as shown below), so that convenient operation and maintenance can be performed.



4.3 Connecting the Power Adapter

1) Ensure the printer power is turned off.
2) With the flat side of the power adapter's cable connector facing downward, insert the cable connector into the power connector on the backside of the printer.



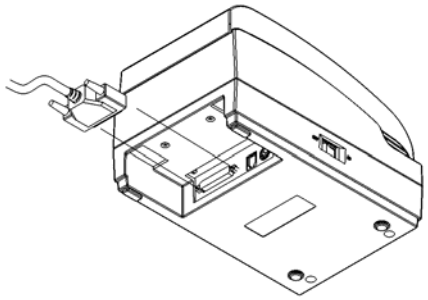
3) Plug the power cord into a suitable wall outlet.

Caution:

- ✧ Use only the supplied power adapter or other equal model.
- ✧ When connecting or disconnecting the cable connector of the power adapter, always pull on the connector, not on the cable.
- ✧ Do not pull on the power adapter cord. Otherwise the cord may be damaged or broken, causing a risk of fire or electric shock.
- ✧ Do not place the power adapter cord near a heating device, otherwise, the cover of the cord may melt, causing a risk of fire or electric shock.
- ✧ When the printer is not used for a long period of time, disconnect the power Adapter from the wall outlet for safety.

4.4 Connecting Signal Cable

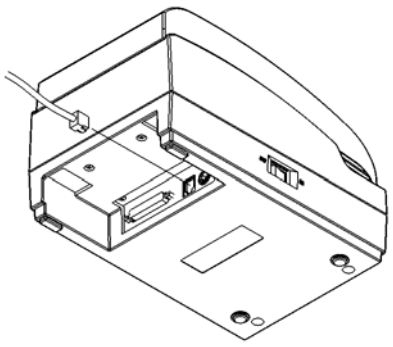
1) Ensure the printer power is turned off.
2) Put signal cable into suitable connector which should be fixed with plug screw (or clip spring).



3) Connect the other end of signal cable to the host.

4.5 Connecting the Cash Drawer

1) Ensure the printer power is turned off.
2) Insert the cash drawer cable into the cash drawer connector on the backside of the printer.



Caution:

Do not connect a telephone line to the cash drawer connector; otherwise the printer and the telephone line may be damaged.

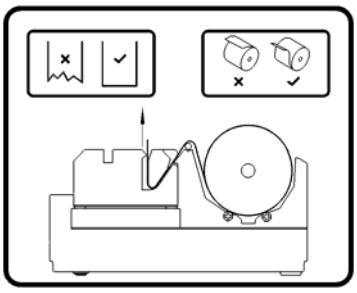
4.6 Loading the Roll Paper

4.6.1 Confirming the media

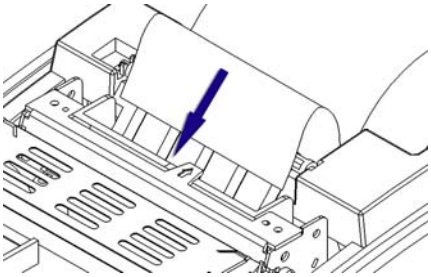
After connecting the power adaptor and signal cable, you can load the media for printing. Before loading roll paper, you should confirm the type of the paper to be used for printer. The default paper type is continuous paper. If marked paper will be used, please contact SNBC or your local agents.

4.6.2 Loading/replacing roll paper

1) Turn on the printer power.
2) Open top cover of the printer and confirm paper head is trimmed. Drop roll paper into paper cabinet as shown.



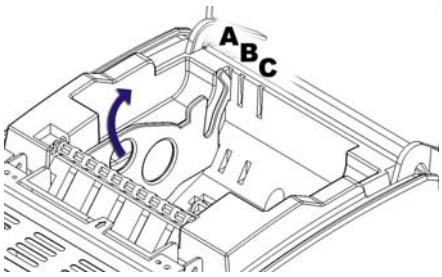
3) Insert paper head into paper inlet around paper guiding platen and wait for printer to feed paper automatically. When paper is end, the printer will be off-line.



4) After 1s, paper will feed automatically about 35 mm. If the media is marked paper, the printer will detect the marks after feeding paper and position it at the tear-off point.
5) After about 3s, PAPER LED will flash. Press FEED button and the printer will enter into on-line status.

Caution:

- ✧ Adjust the paper guide according to the paper type used: hold the hole at the backside of paper guide to turn it up and take it off; select proper position to insert paper guide vertically according to paper width; pay attention to the winding direction of paper which should match the printer requirement.

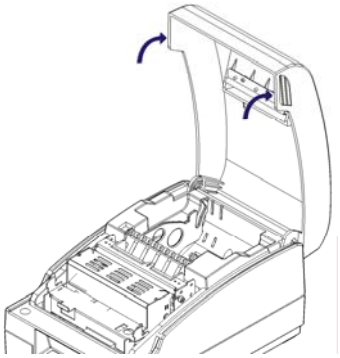


Note: A: 76±0.5mm
B: 69.5±0.5mm
C: 57.5±0.5mm

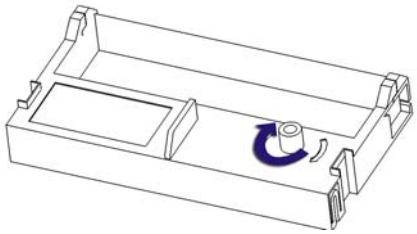
- ✧ Roll paper should be rolled tightly to eliminate risk of paper jam or other malfunction.
- ✧ Paper should be loaded in paper cabinet firmly and straight; otherwise, it will affect paper auto-loading and printing.

4.7 Loading Ribbon

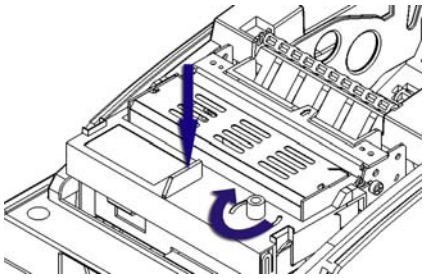
1) Open top cover of the printer.



2) Turn the ribbon knob two or three times according to the mark to tighten the ribbon.



3) Mount the ribbon on the print mechanism vertically until the ribbon cartridge is fixed.



4) Turn the ribbon knob two or three times according to mark to tighten the ribbon again.

Caution:

- ✧ It is recommended to use EPSON original ribbon, otherwise, it will affect the reliability of ribbon driving organ and print head.
- ✧ Ribbon should be mounted between print head and paper, without folds or drapes.
- ✧ The print head will become hot during printing. To avoid harm or injury, please give it sufficient time to cool down before replacing the ribbon.

4.8 Self-test

1) Ensure roll paper and ribbon have been loaded in the printer, and top cover is closed properly.
2) Hold the button while turning on the printer. When ERROR LED flashes once, release the button, the self-test will start printing the configuration information and following indication information: "Press and Release FEED key to print characters" and "Press

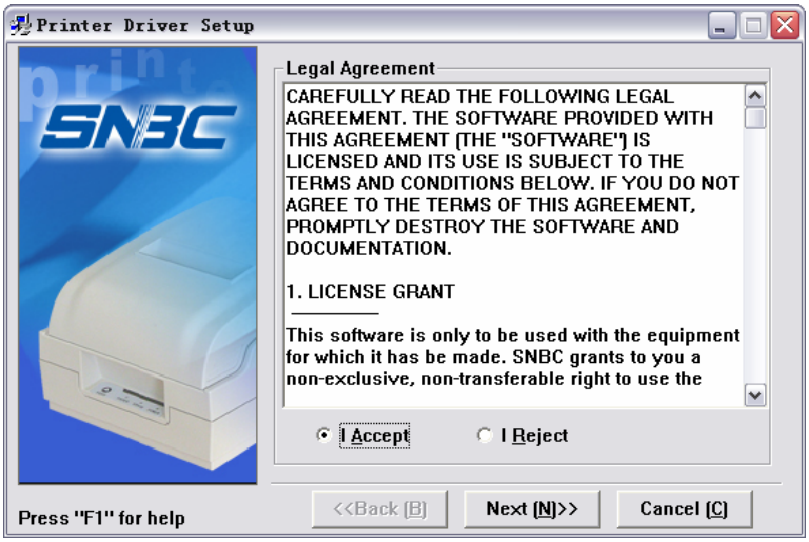
and Hold FEED key to configure the print" then enter hold-on status. The PAPER LED flashes.

3) Press the FEED button for a short time, the printer will print a second page with a pattern using the built-in character sets; Press the FEED button for a long time, the printer will enter button configuration mode.

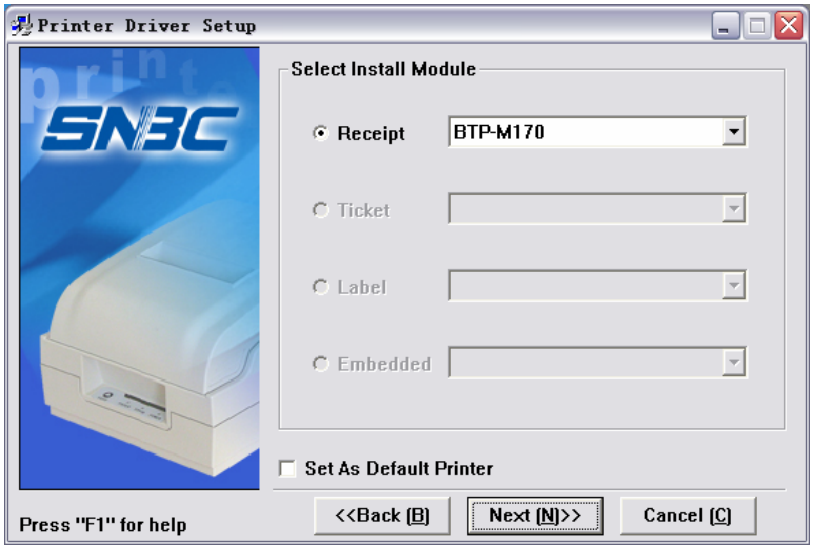
4.9 Installing the Printer Driver

BTP-M170 printer offers the drivers under Windows 98/Windows NT4.0/ Windows 2000/ Windows XP/ Windows server 2003 and Windows Vista with the installing steps as below:

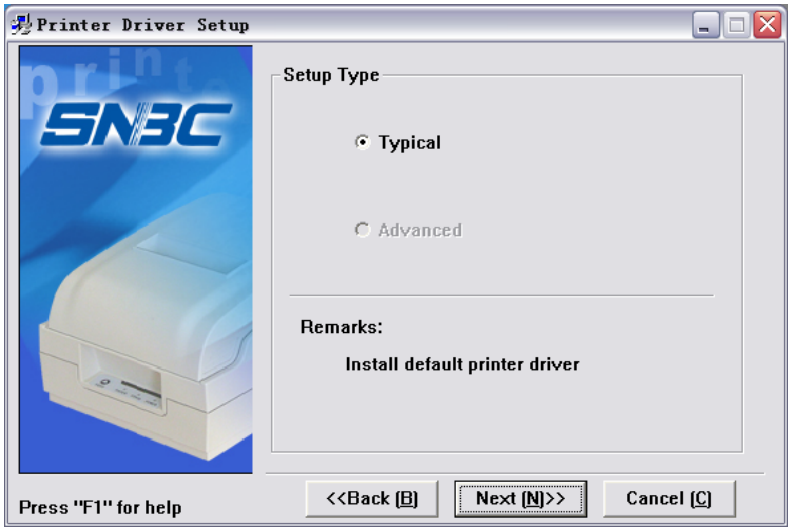
1) Run "Setup.exe" in the driver package and read the relative software licensing protocol carefully. If you accept it, please click "I Accept", then click "Next" button.



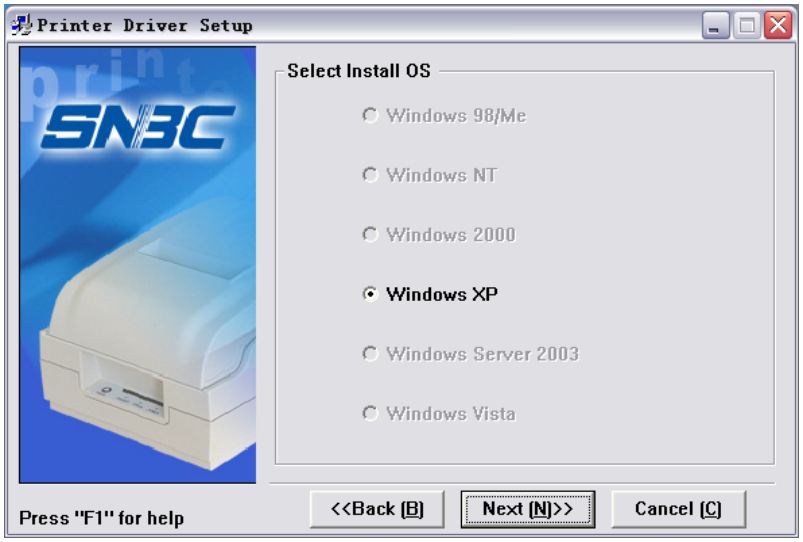
2) Select the model and the name of the printer to be installed. If you set it as default printer, please select "Set As Default Printer", then click "Next" button.



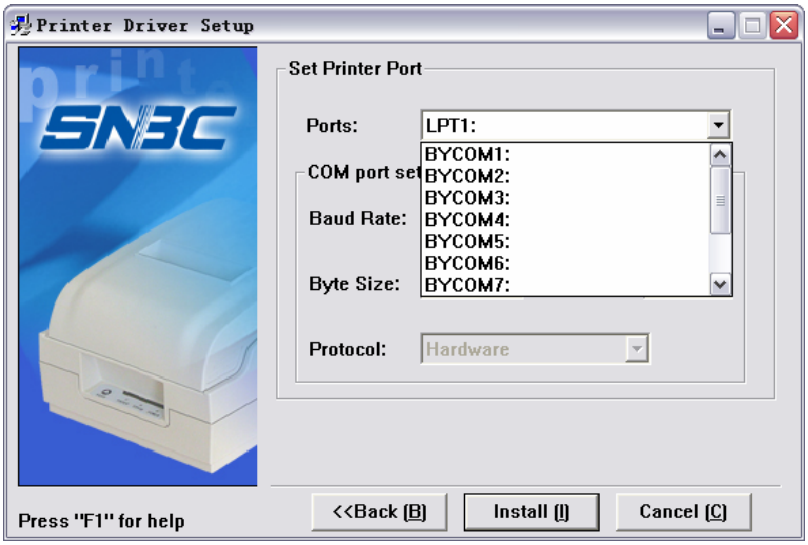
3) Select the setup type "Typical", then click "Next" button.



4) Select the current system type and click "Next" button.



5) Set printer port. The default port is "LPT1". User can install it based on actual port. Under Windows NT4.0 or above, please select "BYCOMx" for serial driver (x equals to 1,2,3,4,5,6,7 or 8). Click "Finish" button to end the installation.



6) If the current system is Windows 98/Me, click "Yes" in the pop-up window to restart PC.

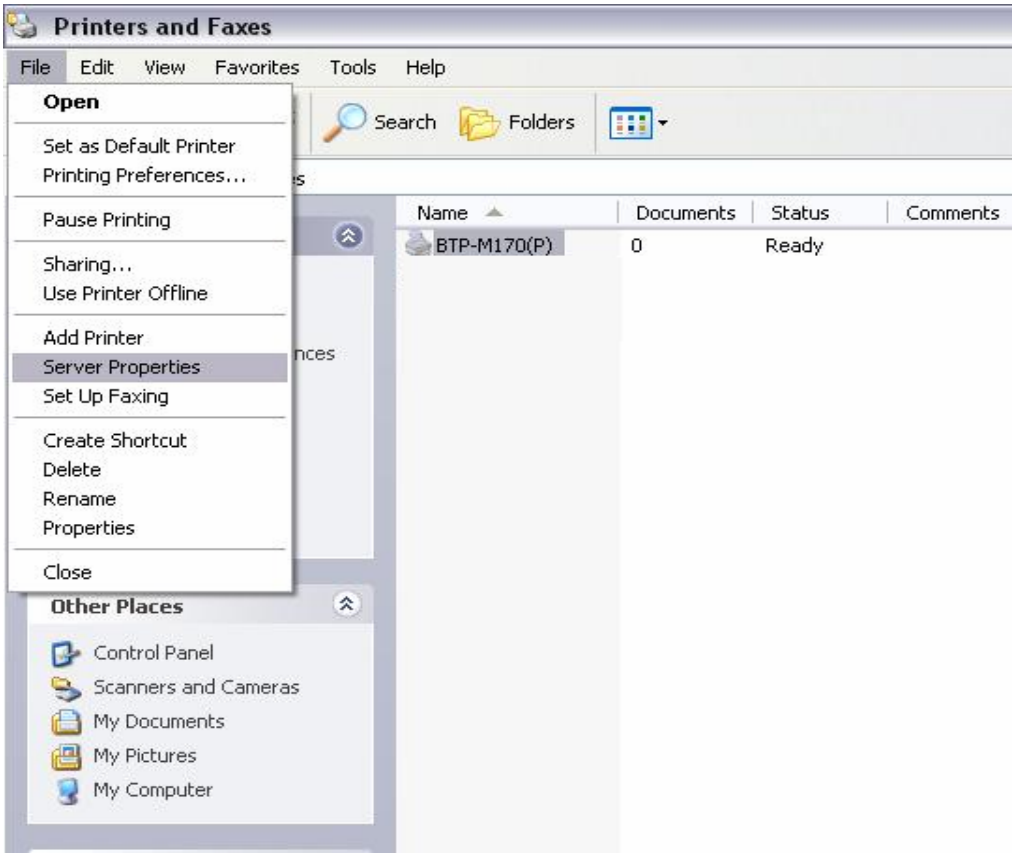
4.10 How to Use the Driver

After installing the driver, you can print all characters and images in WORD or EXCEL file, That is ''What You See Is What You Get''. But you should set the page and select parameters properly.

4.10.1 User defined page

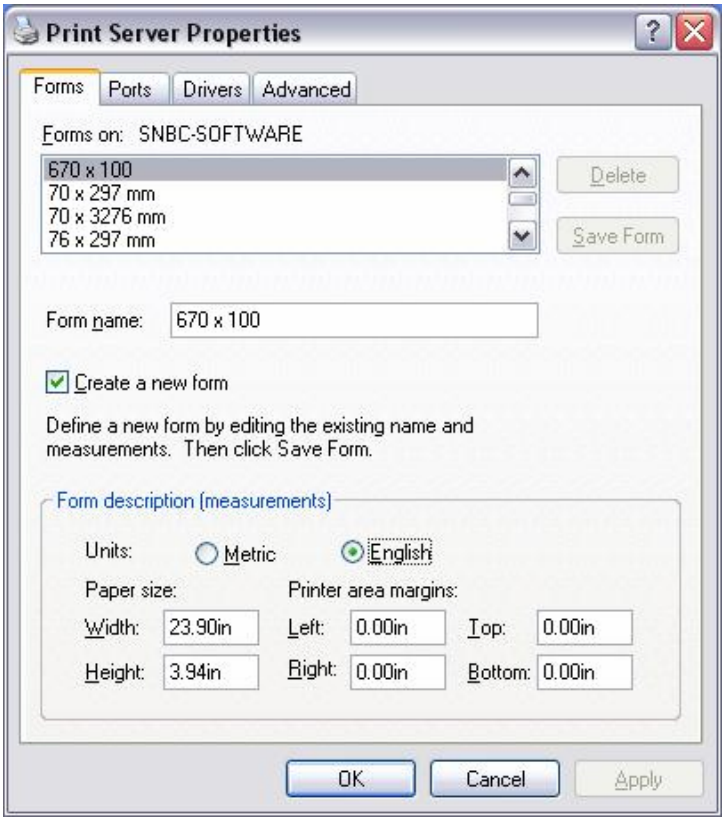
If the page size defined by the driver can not meet user's requirement, user can define the page size by himself; under Window 98 system, user defined self-defining page can be realized via page settings. But under Windows NT4.0/ Windows 2000/ Windows XP/ Windows server 2003/Vista, it cannot define page size via page settings. The following steps introduce how to define page size (take Windows XP system as an example):

1) Ensure the system running normally.
2) Click "Start" button.
3) Click "Printers and faxes" in "Settings" item; or first click "Control panel" button, then click "Printers and other hardware" in "Control panel", next click "Printers and faxes" button.
4) After select this printer, click "File" menus, then click "Service Properties" submenus.



5) In "Forms" item, select "Create a new form".
6) Write the name of self-defining paper in "Form name".

7) Take "Metric" or "English" as measurement units. Self define paper width and length, right/left margin and up/down margin of the printing area.



8) Click "Save Form" button.

9) Click "Apply" button to finish paper self-definition.

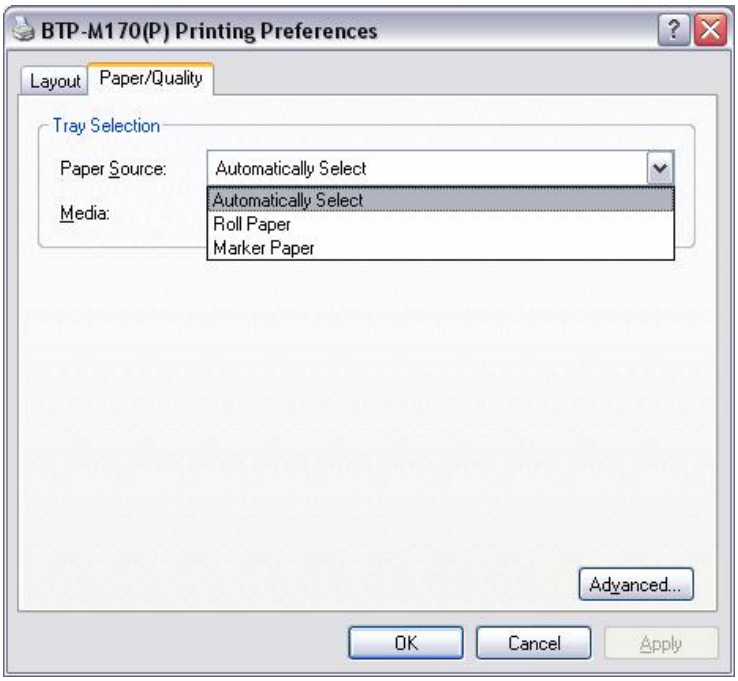
Caution:

- ✧ Before set paper self-definition, please ensure that the printer driver has been installed properly.
- ✧ In application, you can select the page in varieties of official software such as WOED, EXCEL and so on.

4.10.2 Parameter explanation

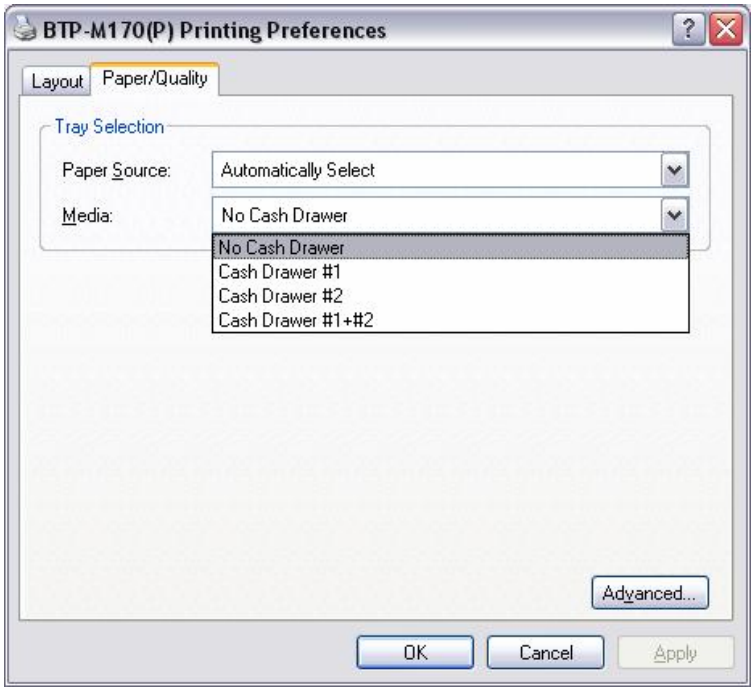
The driver offers cut mode, paper type and cash drawer function for users. Users can configure the parameters according to their conditions. Take Windows XP system as an example to describe how to set the driver parameters.

1) Setting paper type



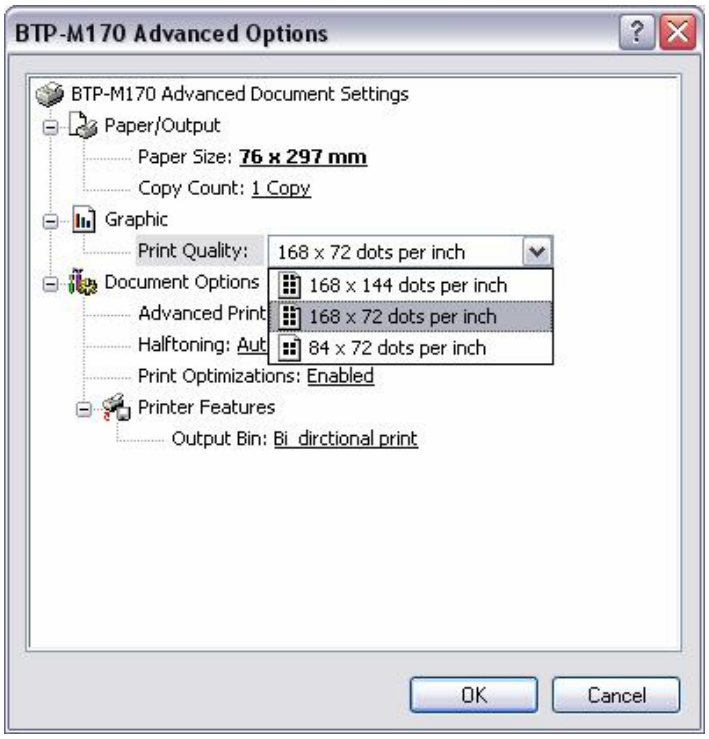
Optional paper type: roll paper and marked paper.

2) Setting cash drawer parameters



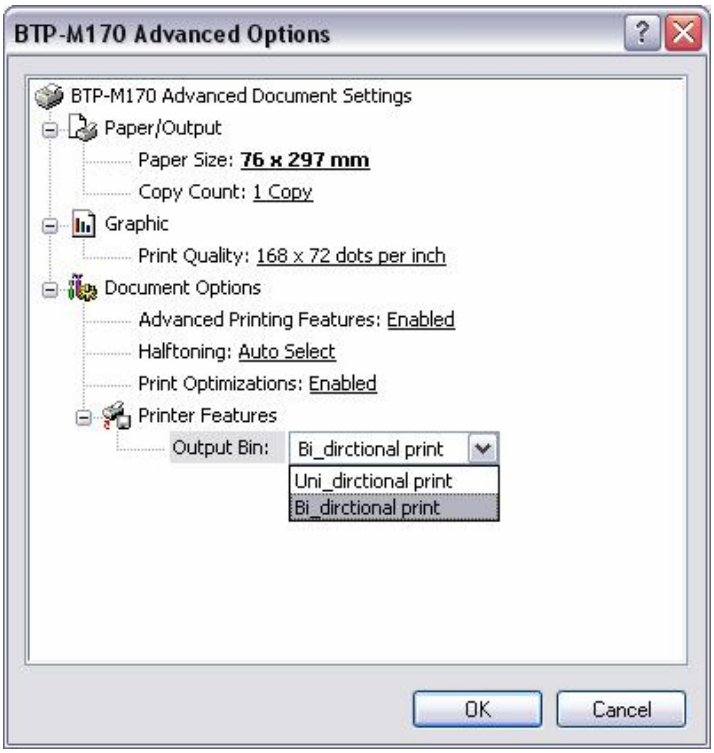
This option could set if cash drawer shall be opened in the beginning of file and which cash drawer shall be opened.

3) Setting resolution parameter



BTP-M170 driver supports three kinds of resolution: 160 x 144 dpi, 160 x 72 dpi, 80 x 72 dpi. Users can select it according to their requirement. High resolution: clear resolution and slower print speed; low resolution: higher print speed and less clear printout.

4) Single/bi-directional print settings



Set single/bi-directional print settings via this option.

5 Maintenance

Printer maintenance includes daily maintenance and routine maintenance.

5.1 Daily Maintenance

Daily maintenance means inspect printer functions and key parts everyday in order to check the printer status. If the printer can not work normally, please contact SNBC or your local agents to get quick technical support.

Daily inspection includes:

1) Printout

Abnormal status: printout not clear.

Possible causes and solution:

- Ribbon is out of ink. Replace it in time.
- Too much dust on print head, clean it with brush.
- Print needles are worn heavily. Ask a technician to adjust the print interval or replace print head.

Abnormal status: printout not complete.

Possible causes and solution:

- Print head cable is worn. Ask a technician to replace it.
- Print needles are damaged. Ask a technician to replace print head.

2) Paper test

Abnormal status: The printer cannot feed paper automatically.

Possible causes and solution:

- Impurity exists in the path. Ask a technician to remove it with special tool (such as forceps).
- Paper end sensor is abnormal. Ask a technician to check. If the sensor is damaged, please replace it.
- Paper feed motor is abnormal. Ask a technician to check. If the motor is damaged, please replace it.

3) Printer operation sound

Abnormal status: Too much noise when paper feed.

Possible causes and solution:

- Paper feed gear is short of lubricant. Ask a technician to lubricate it.
- Paper feed gear is worn. Ask a technician to replace it.

Abnormal status: Too much noise when carriage action.

Possible causes and solution:

- Paper feed gear is short of lubricant. Ask a technician to lubricate it.
- Paper feed gear is worn. Ask a technician to replace it.
- Screw rod is short of lubricant. Ask a technician to lubricate it.

4) Ribbon action

Abnormal status: Ribbon baseband doesn't run when printing.

Possible causes and solution:

- Resistance from ribbon baseband is too much, replace ribbon.
- Ribbon driving gear is worn. Ask a technician to replace it.

Caution:

- It is recommended to use EPSON original ribbon, otherwise, it will affect the reliability of the printer.
- It is not recommended only changing baseband while using the same ribbon carriage repeatedly, otherwise it will reduce the lifetime of the ribbon driving gear.

5.2 Routine Maintenance

To ensure all parts of the printer work stably, it should be maintained at least once a month. If the printer works heavily, the maintenance cycle should be shortened accordingly. The routine maintenance includes printer status check, dust clearance and parts lubrication.

5.2.1 Printer status check

During printer routine maintenance, check the following items besides daily maintenance:

1) Check if each transmission organ of the printer is normal, which include paper feed gear, printing transmission gear, screw rod and ribbon driving gear. If any part is worn, please ask a technician to replace it in time.
2) Check if the lubrication of printer driving parts are normal, including paper feed gears, printing gears, ribbon driving gears, screw rod and carriage frame. If the lubrication on any part is gone, please lubricante in time.
3) Check if the print head cable is normal. If it is worn, please contact a technician to replace it in time, otherwise the print head may be burned or damaged.

5.2.2 Dust clearance

The printer shall be cleaned with special tools for example a cleaning brush, forceps and soft cloth. We suggest sweeping the printer at least once a month. If printer works heavily, the cleaning cycle should be shortened accordingly.

1) Sweep away wastepaper in the print mechanism with cleaning brush. Wastepaper mainly exists around the print head iron mat and on carriage.
2) Remove ribbon fuzz in the mechanism with forceps. Fuzz mainly exists at the two ends of the carriage holding shaft and at the bottom of the mechanism.
3) Remove dirt on the carriage holding shaft and stem between print head iron mat and paper guide spring strip.
4) Remove the dirt on the screw rod with forceps. If there is too much dirt and screw rod dry, please clean it first, and then refill some lubricant.

Caution:

- Lubrication is a key material which helps the printer work normally. When cleaning the print mechanism, avoid erasing the lubrication. If this case happens, please refill

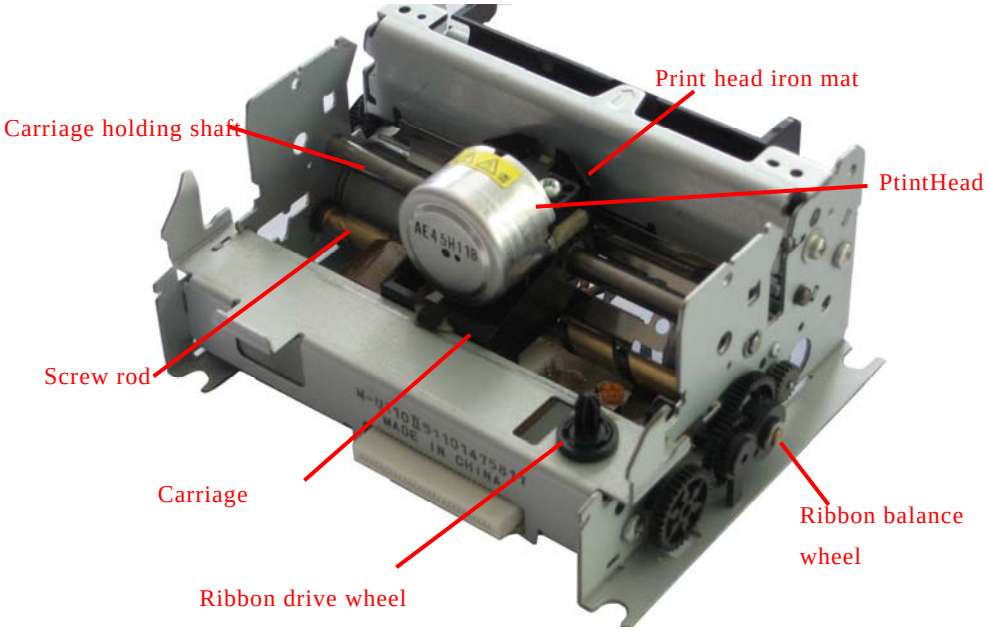
it in time.

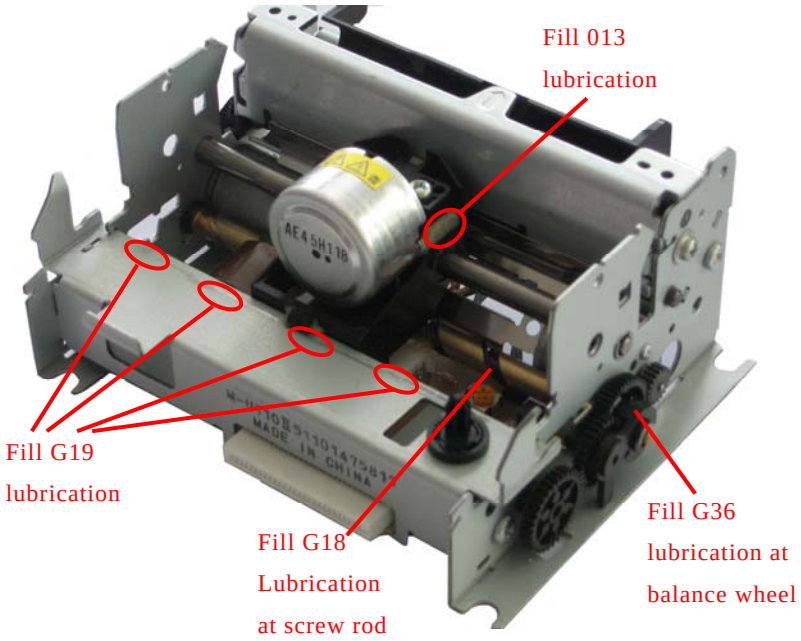
- ✧ Do not use alcohol or gasoline to clean any parts of the printer.
- ✧ During the clearance, be careful not to spread dirt onto screw rod or other transmission parts.

5.2.3 Lubricating the printer

Lubricant position and model:

1) Inject 013 lubrication into felt at two sides of the carriage.
2) Inject G18 lubrication into the slot of screw rod.
3) Inject G36 lubrication the balance wheel of ribbon.
4) Inject G19 lubrication at the jointing point of carriage base and mechanism metal parts as shown.





6 Interface Signal

6.1 Parallel Interface

The parallel interface is unidirectional which supports BUSY/ACK handshaking protocol. Its connector is DB25 needle type.

Pin	Signal definition
PIN1	nStrobe
PIN 2	Data 0(LSB)
PIN 3	Data 1
PIN 4	Data 2
PIN 5	Data 3
PIN 6	Data 4
PIN 7	Data 5
PIN 8	Data 6
PIN 9	Data 7 (MSB)
PIN 10	Ack
PIN 11	Busy
PIN 12	PError
PIN 13	Select
PIN 14	NC
PIN 15	nFault
PIN 16	Rise to 5V via a resistance
PIN 17	Rise to 5V via a resistance
PIN 18～25	Logical ground

6.2 Serial Interface

The serial interface is RS-232 compatible and its connector is 25pin female D type.

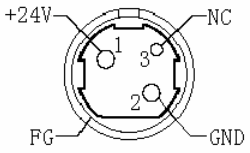
PIN No.	Signal definition
PIN1	Frame Ground
PIN2	TXD
PIN 3	RXD
PIN 4	RTS
PIN 5~6	NC
PIN 7	Signal Ground
PIN 8~19	NC
PIN 20	DTR
PIN 21~25	NC

User may check the current setting status of the interface by printing a configuration table. The default setting is as follows:

Baud rate: 9600bps
Data bit: 8
Parity bit: None
Stop bit: 1
Handshaking: DTR/DSR

6.3 Signal Definition of Power Connector

1) Pin definition



1: Positive (+24V)

2: GND

3: NC.

2) Connector type

Printer: Unetop DC-002 or equivalent

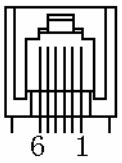
User end: Unetop DP-002 or equivalent

6.4 Signal Definition of Cash Drawer Connector

1) Electric characteristic

- Driving voltage: DC 24 V
- Driving current: Max 0.8 A (within 510 ms)
- Cash drawer status check signal: "L" = 0～0.5 V "H" = 3～5 V

2) Cash drawer connector socket is RJ-11 6P connector.



3) Connector signal definition

Item	Signal	Functions
1	FG	Frame Ground
2	DRAWER 1	Cash drawer 1 drive signal
3	DRSW	Cash drawer status detect signal
4	VDR	Cash drawer power supply
5	DRAWER 2	Cash drawer 2 drive signal
6	GND	Common point on circuit

Caution:

- ✧ Do not connect or disconnect signal cable when printer power is on.
- ✧ Signal cable should be far away strong current.
- ✧ Signal cable should be shielded.

7 Troubleshooting

If the printer works abnormally, consult the troubleshooting table below. If there are still problems that can not be solved, please contact SNBC or your local agents for assistance.

7.1 Printer doesn't Work

Problems	Possible causes	Solution
LED is off and the printer doesn't work	Printer power is off	Make sure that printer cable has been connected properly on both ends
	Printer is not turned on	Turn on printer
	Circuit is damaged	Contact SNBC or your local agents

7.2 Error LED and Buzzer

Problems	Possible causes	Solution
Error LED flashes and buzzer beeps	Paper near end	Replace roll paper
	Paper end	Replace roll paper
	Input voltage abnormal	Turn off printer power and check input voltage
	Print head overheated	Turn off printer power and wait for normal print head temperature
	HP error	If ribbon is damaged, replace ribbon
		Press & hold FEED button
	Printer has serious fault	Contact SNBC or your local agents

7.3 Problems during Printing

Problems	Possible causes	Solution
Printout is light and not clear	Ribbon ink is out	Replace ribbon
Always feed paper in printing	Confirm if paper type matches with the paper used	Replace with matched roll paper
Printout is not clear or dirty	Print head or paper feed platen is dirty	Clean print head or paper feed platen
Paper cannot be fed normally	Paper jam	Open top cover to check paper path and remove paper jam
Horizontal printout is missing	Ribbon is damaged	Replace ribbon
	Print head error	Contact SNBC or your local agents

7.4 Problems during Using Driver

Problems	Possible causes	Solution
Print mass code with serial interface	Configure serial parameter incorrectly	Print a self-test page to confirm serial configuration of the current printer and configure it correctly.
Black mark fails to be positioned normally	Page settings are not correct	Select correct paper type in the document to be printed
Printer fails to work normally with serial and parallel interface	Overtime setting is too short	Extend the overtime of serial and parallel communication referring to the help file in the package
	Current port is used	Close other programs which use the port